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### **SUMMARY**

Climate change is driving rising health risks in Uganda, including infectious diseases, malnutrition, heat stress, and pollution-related illnesses. Yet national climate policies only weakly incorporate health, constraining efforts to build climate-resilient health systems. This policy brief, based on a review of implementation of updated Nationally Determined Contributions (NDC 2.0), highlights both progress and gaps in climate-health integration. NDC 2.0 advances recognition of climate-health links, prioritises adaptation, and aligns with national frameworks. However, it lacks dedicated financingneglects to sufficiently address the sexual and reproductive health (SRH), mental health, and health co-benefits from mitigation efforts such as reduced air pollution. NDC 3.0 can strengthen the existing foundation by aligning with Uganda's Health-National Adaptation Plan, incorporating explicit health indicators, and securing financing and tracking systems. These measures will enhance policy coherence, strengthen climate-resilient health systems, and position Uganda as a regional leader in integrating health into climate action.







### **KEY RESULTS**

- Uganda's NDC 2.0 recognizes the links between climate and health, including SRH and waterand vector-borne diseases, but does not identify specific actions to address them.
- Dedicated financing for health-related adaptation, including SRH and mental health, is missing.
- Monitoring frameworks track malaria only; other health indicators like heat stress or SRH access are absent.
- No strategies address key climate-sensitive health risks, including heat-related illnesses, mental, and pollution-related diseases, despite their increasing importance.
- NDC 2.0 lacks clarity on how women, youth, and marginalized groups influenced climate-health priorities and actions.
- The Health-National Adaptation Plan (H-NAP) provides measurable health targets that can inform NDC 3.0's development. This strategic alignment will bridge existing policy and implementation gaps.

#### **BACKGROUND**

The climate crisis is fundamentally a health crisis, and it increasingly affects lives and livelihoods in Uganda and around the world. Climate change is a threat multiplier, worsening existing social and economic inequalities, particularly in physical health, sexual and reproductive health, and mental health. Ugandans face rising exposure to extreme heat, infectious diseases, malnutrition, and psychosocial stress. At the same time, unsustainable systems in energy, food, and urban planning amplify these impacts through air pollution, unhealthy diets, and poor living conditions. These health effects are not experienced equally—women, men, boys, and girls face different vulnerabilities based on their social roles, responsibilities, and access to services.

Under the Paris Agreement, governments are required to submit Nationally Determined Contributions (NDCs) every five years to the UNFCCC secretariat, with increasing levels of ambition. Uganda is now preparing to submit its third-generation NDC (NDC 3.0), which will outline its climate targets and strategies through 2035. NDCs serve as the main policy instrument through which countries articulate their response to climate change.

During the first global stocktake that took place at the 28th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP28) in 2023, countries committed to transitioning away from fossil fuels, tripling renewable energy capacity, halting deforestation by 2030, and submitting more ambitious NDCs by 2025. These NDCs must include economy-wide emission reduction targets for 2035, cover all greenhouse gases and sectors, and present clear pathways to limit warming to 1.5°C. Importantly, the 150 countries, including Uganda, at COP28 endorsed the COP28 UAE Declaration on Climate and Health, committing to integrate health considerations into their next round of NDCs.

While a 2023 WHO review found that 91% of countries' NDCs already acknowledged health as a climate priority, but the depth and quality of its integration were inconsistent. In 2024, the United Nations Framework Convention on Climate Change's (UNFCCC's) NDC Synthesis Report warned that, even if current climate plans are fully implemented, global temperatures could still rise by 2.1°C to 2.8°C by 2100. This level of warming would have severe health consequences and undermine development goals. The WHO's new guidance highlights opportunities for countries to enhance climate action's health benefits through more ambitious NDCs.

This policy brief assesses Uganda's NDC 2.0 (or updated NDCs) to evaluate its integration of health and identify opportunities to strengthen NDC 3.0. By sharing this analysis, it aims to inform policymakers and stakeholders engaged in shaping Uganda's climate-health agenda.

#### **METHODS**

We employed a systematic desk review to assess health's integration into Uganda's NDC 2.0. The desk-based analysis applied a structured evaluation framework adapted from the Global Climate and Health Alliance's NDC Scorecards. Based on this framework, we evaluated eight categories:

- 1. Emissions target ambition.
- 2. Integrated planning and governance.
- 3. Climate impacts on health.
- 4. Action in the health sector.
- 5. Action in other health-determining sectors.
- 6. Financial commitments for climate-health action.
- **7.** Participation and equity.
- 8. Monitoring and reporting.

### **KEY RESULTS**

### **Emissions Target Ambition**

In its fulfilment of Article 4 of the Paris Agreement, Uganda's NDC 2.0 presents an ambitious economywide mitigation target for 2030: a 24.7% reduction below the business as usual (BAU) scenario and an increase from the 22% reduction target set in its first NDC in 2016. The updated BAU scenario is based on projections developed in 2021, while the first NDC used a 2015 BAU baseline. Despite Uganda's minimal contribution to global emissions—with per capita emissions estimated at 0.1 tCO<sub>2</sub>e and a low Human Development Index of 0.477—it is among the most climate-vulnerable countries. Additionally, the country-through its NDC 2.0-pledged its first unconditional mitigation contribution of 5.9% reduction below the BAU trajectory in 2030 and broadened the adaptation sectors from 7 to 13.

While Uganda's NDC 2.0 demonstrates incremental progress toward its emissions target, it falls short of the commitment needed to align with

the 1.5°C pathways under the Paris Agreement. The increase from a 22% reduction to a 24.7% reduction below the BAU scenario by 2030 is modest and does not reflect the needed scale for transformative mitigation. NDC 2.0 also does not explicitly acknowledge or leverage the potential health co-benefits of emissions reduction, such as improved air quality or reduced disease burden, as a rationale for stronger climate action. This omission represents a missed opportunity to link mitigation efforts with public health outcomes, which could strengthen cross-sectoral support and enhance the NDC's overall ambitions. By addressing this gap in NDC 3.0, Uganda would better maximize the dual benefits of climate and health action.

## TO MEET EMISSION TARGETS, NDC 3.0 SHOULD:

- Recommit to and deliver ambitious emissions reductions according to national circumstances in line with the Paris Agreement and reflect on the outcomes of the first global stocktake.
- Prioritize robust reduction targets for major emitting sectors, such as energy, transport, and agriculture, to align with 1.5°C pathways.
- Use methodologies such as the Science-Based Targets initiative (SBTi) to ensure emissions reductions align with global climate goals.
- Commit to transparent reporting mechanisms to make reduction strategies measurable, verifiable, and accountable.
- Address short-lived climate pollutants, such as methane, with targeted strategies that deliver immediate health and climate gains.
- Maximize health gains by prioritizing domestic emissions reductions instead of relying on offsets.

### **Integrated Planning and Governance**

Uganda's NDC 2.0 strongly aligns with national and international frameworks such as the Paris Agreement, 2030 Agenda for Sustainable Development (SDG13), Sendai Framework for Disaster Risk Reduction 2015-2030, and post-2020 Global Biodiversity Framework, among others. At the national level, its adaptation and mitigation actions align with the country's Vision 2040, the National Development Plan III, the National Green Growth Development Strategy, and the 10-year Environment Restoration Plan. The updated NDC commits to a whole-of-society implementation approach, engaging government institutions, the private sector, academia, civil society, youth, and development partners.

Importantly, NDC 2.0 includes a dedicated section on health and references health throughout the document, acknowledging the critical connections between climate change and public health. It also references other relevant policies such as the National Health Policy (2010), National Disaster Preparedness and Management Policy (2010), Renewable Energy Policy (2007), National Agricultural Policy (2013), Renewable Energy Policy (2007), National Irrigation Policy (2017), National Land Policy (2013), and Uganda non-motorised transport policy (2013).

However, NDC 2.0 contains gaps in the depth of its integration between the climate and health sectors. It does not align with emerging international health-climate frameworks such as the 77th World Health Assembly Resolution and its forthcoming Global Plan of Action, the WHO's 14th General Programme of Work, or the WHO Operational Framework for Building Climate Resilient and Low Carbon Health Systems. It also does not reference the UAE COP28 Declaration on Climate and Health or the UNFCCC Subsidiary Body for Implementation indicators under the Global Goal on Adaptation related to health.

### **Climate Impacts on Health**

Uganda's NDC 2.0 acknowledges the direct impacts of climate change and associated weather events on the health sector. It notes that climate change worsens existing health vulnerabilities through its impact on physical infrastructure, food security, water availability, and the spread of vector- and water-borne diseases. According to the National Risk and Vulnerability Atlas of Uganda, the country faces significant climate-induced hazards—droughts, floods, landslides, windstorms, hailstorms, and lightning—which have downstream effects on public health. The Atlas assigns Uganda's health sector a vulnerability score of 3.67 and risk rating of 3.33, signaling high exposure and limited adaptive capacity.

Yet, Uganda's NDC 2.0 falls short of offering a comprehensive analysis of the full spectrum of climate-related health risks. While the co-benefits of NDC implementation on reducing short-lived climate pollutants and air pollution are briefly mentioned, the document does not adequately address or quantify the health risks associated with air pollution, which is a growing concern, especially in the country's urban areas.

Critically, the NDC lacks attention to sexual and reproductive health and rights (SRHR) and mental health, both of which are increasingly recognized as vulnerable to climate impacts. For instance, climate-related disasters can disrupt access to essential SRH services, increase maternal and neonatal risks, and worsen gender-based violence, yet the identification of these connections are missing from the NDC narrative. Similarly, mental health impacts from displacement, trauma, and climate anxiety—especially among youth and women—are not acknowledged.

### TO SUPPORT EFFECTIVE AND INTEGRATED PLANNING, UGANDA'S NDC 3.0 SHOULD:

- Establish inclusive governance mechanisms that formally integrate health ministries and agencies into national climate policy and implementation structures.
- Sufficiently align NDC health components with relevant international frameworks.
- Strengthen coordination between climate, health, and other development sectors to ensure accountability.

While Uganda's Health National Adaptation Plan and its risk assessments may cover some of these issues, NDC 2.0 does not draw sufficiently from this evidence or incorporate its findings into climatehealth planning.

# TO STRENGTHEN INTEGRATED HEALTH RESPONSES TO CLIMATE CHANGE, NDC 3.0 SHOULD:

- Conduct and publish a comprehensive, evidence-based risk assessment of climaterelated health impacts, drawing on the National Risk and Vulnerability Atlas and other national data.
- Explicitly integrate SRHR and mental health into climate-health strategies, with concrete targets and budget allocations.
- Establish clear commitments to reduce air pollution and short-lived climate pollutants, with a focus on health co-benefits in urban and peri-urban areas.
- Align health components with international frameworks such as the WHO Operational Framework for Climate-Resilient Health Systems and the COP28 UAE Declaration on Climate and Health, ensuring Uganda's actions meet global standards and commitments.

### **Action in the Health Sector**

The development of a resilient and "fit for the future" health system is among the 13 pillars identified to transform Uganda by 2050 into a climate-resilient and low-carbon society that is prosperous and inclusive.

Uganda's NDC 2.0 specifically prioritizes the health sector in its adaptation component, with a dedicated section outlining key actions, indicators, baselines, and targets to support a sustainable and resilient health system. These priority adaptation actions include integrating climate risks into national health plans and strategies (notably through the Health-National Adaptation Plan); strengthening early warning systems, disease surveillance, and emergency response for climate-sensitive health hazards; improving the climate resilience of health infrastructure and systems; and implementing integrated health-related interventions linked to

water and sanitation, education, social protection, and reproductive health care.

However, NDC 2.0 does not detail strategies for managing specific climate-sensitive diseases such as malaria, heat-related illnesses, mental health, and pollution-related health risks, despite their growing importance. It also misses the opportunity to integrate health-specific emergency preparedness, establish climate-informed health service delivery models, and incorporate climate stress indicators into the health information system.

# TO ENHANCE THE EFFECTIVENESS OF HEALTH ADAPTATION MEASURES, UGANDA'S NDC 3.0 SHOULD:

Fully align with the H-NAP, drawing on its comprehensive priorities to expand planned health actions' scope and specificity. These actions include articulating concrete, measurable interventions across SRH, mental health, and environmental health (such as air quality), with well-defined indicators, baselines, targets, and indicative budgets.

### **Action in Other Health-Determining Sectors**

Uganda's updated NDCs reflect a broadened sectoral scope for climate adaptation, expanding beyond traditional sectors such as agriculture, forestry, water, infrastructure, and energy to include environment and ecosystems (wetlands, biodiversity, and mountains), water and sanitation, fisheries, transport, manufacturing, industry and mining, cities and built environment, disaster risk reduction, tourism, and education. For instance, NDC 2.0 frames the regulation of energy use in buildings for cooling, heating, ventilation, and hot water in alignment with objectives for health, comfort, well-being, and sustainability, including improved energy productivity and reductions in CO<sub>2</sub> emissions. Efforts to improve water, sanitation, and hygiene (WASH) and sustainable land management are vital for preventing waterborne diseases and enhancing nutrition and food security.

However, while NDC 2.0 acknowledges that these sectors influence health outcomes, it does not explicitly articulate or quantify the indirect health benefits derived from mitigation and adaptation actions. Key interventions such as transitioning to renewable energy (which improves air quality and

reduces respiratory diseases), promoting sustainable transport (which lowers emissions and traffic-related health risks), and implementing climate-smart agriculture (which strengthens food and nutrition security) are not systematically linked to their corresponding health outcomes. This omission limits opportunities to monitor and evaluate health-related co-benefits and hinders integration of health-sensitive planning across sectors.

# TO STRENGTHEN ACTIONS IN OTHER HEALTH DETERMINING SECTORS, UGANDA'S NDC 3.0 SHOULD:

- Ensure all sectoral NDC plans (energy, agriculture, WASH, urban planning, infrastructure) include at least one health-related target, such as reduced air pollution, access to safe water, and climateresilient health facilities.
- Develop a set of cross-sector health indicators to track progress; for instance, reduction in respiratory illnesses, improved nutrition outcomes, and reduced vectorborne disease incidence.
- Establish an inter-ministerial taskforce (Health, Energy, Agriculture, Environment, Water, Infrastructure) to coordinate climate-health actions.
- Prioritize investments that deliver health co-benefits, such as clean cooking solutions that cut emissions and reduce respiratory diseases and climate-smart agriculture that improves food security and nutrition.

# **Financial Commitments for Climate- Health Action**

Uganda's NDC 2.0 outlines a dual-track approach to climate action financing, with unconditional commitments supported by domestic resources and conditional targets dependent on international assistance. The target to reduce emissions by 24.7% below the BAU scenario by 2030 includes a 5.9% reduction to be achieved through domestic funding and an additional 18.8% reduction contingent on external support, namely financial resources, capacity building, and technology transfer.

The total cost of implementing adaptation, mitigation, coordination, monitoring, and reporting of the updated NDC is estimated at US\$28.1 billion. Uganda commits to mobilize US\$4.1 billion in domestic resources to cover the unconditional actions, which is equivalent to 15% of the total cost of the updated NDC, and will require international support to cover the conditional measures and actions. While NDC 2.0 underscores the need for foreign aid to achieve Uganda's climate ambitions, it does not specify financial allocations for health-related actions. This lack of clarity and dedicated health budgeting poses a critical gap, particularly given the high vulnerability of Uganda's health system to climate impacts.

Uganda's heavy reliance on external funding for the majority of NDC 2.0's implementation raises concerns about the feasibility and timeliness of delivering planned actions. Moreover, the absence of explicit funding streams for health adaptation, including support for climate-resilient health infrastructure, mental health care, and access to SRH services, undermines Uganda's capacity to address health-related vulnerabilities linked to climate change. Explicit allocation of resources to health-focused initiatives would strengthen the NDC's overall impact.

### TO ENHANCE FINANCING FOR CLIMATE-HEALTH ACTIONS, NDC 3.0 SHOULD:

- Commit clear national and sectoral budgets for implementing NDC health priorities.
- Create a dedicated adaptation fund for health, with costed budget lines for resilient facilities, SRH, and mental health.
- Mandate periodic cost-benefit and returnon-investment analyses to guide resource use and demonstrate value.
- Earmark financing for underfunded areas like SRH and mental health to ensure they are not overlooked.
- Expand financing sources through innovative tools such as climate bonds, insurance schemes, and grants-based mechanisms.

### **Participation and Equity**

Uganda's NDC 2.0 outlines a broadly participatory process involving multiple stakeholders, emphasizing a whole-of-government and wholeof-society approach. The development process featured consultations with government ministries, departments, and agencies; the private sector; academia; civil society organizations; youth; and development partners. Notably, Uganda conducted five regional, multi-stakeholder workshops in the Central, Western, Eastern, Northern, and West Nile regions using a hybrid format in line with COVID-19 safety protocols. The country organised sector-specific consultations across thematic clusters—Agriculture, Forestry and Other Land Use and Wetlands; Energy and Transport; Waste and Industrial Processes and Product Use; and Water, Health, Cities, and Disaster Risk Reduction—to gather technical and community-level perspectives. Women's groups and Indigenous peoples were also explicitly consulted during this process.

TO ENHANCE PARTICIPATION AND EQUITY, NDC 3.0 SHOULD:

- Require ministries to document and publish how Indigenous peoples, youth, women, persons with disabilities, and other marginalized groups were consulted and how their inputs informed health priorities.
- Develop health adaptation plans that include targeted measures for groups at highest climate risk, with identified actions on SRH, mental health, and protection from gender-based violence.
- Fund gender- and youth-responsive programs that expand access to SRH services and psychosocial support for communities affected by climate shocks.
- Integrate measures to reduce gender inequality and prevent GBV into climatehealth responses, with clear accountability and monitoring mechanisms.

The specialized consultations targeting youth and civil society actors demonstrate Uganda's effort to include diverse voices. However, while youth participation is acknowledged, it is unclear to what extent their views were integrated into the final content. Additionally, despite NDC 2.0's commitment to equity and gender responsiveness, it does not provide disaggregated data on participants or detail how the contributions of marginalized groups—including rural populations and people with disabilities—influenced decision-making or prioritization of climate-health actions.

The NDC also indicates that gender sensitivity informed how adaptation and mitigation actions were prioritized, and this gender sensitivity was mainstreamed into the updated implementation plan. However, there is limited clarity on how equity considerations were applied, especially in health strategies targeting vulnerable populations in climate-vulnerable regions such as flood-prone or heat-stressed areas.

## **Monitoring and Reporting**

Uganda has an established framework for strengthening monitoring, reporting, and verification of the updated NDC's implementation and achievements. The Climate Change Department (CCD) within the Ministry of Water and Environment is the designated national authority responsible for coordinating and overseeing the monitoring and evaluation (M&E) of climate-related actions. It plays a central role in ensuring Uganda meets its obligations under the UNFCCC, including the Kyoto Protocol and the Paris Agreement.

While NDC 2.0 outlines clear institutional arrangements and includes indicators for key mitigation and adaptation actions, it falls short in tracking health-specific outcomes. The monitoring, evaluation, and verification system does not currently include dedicated metrics to assess climate-related health impacts such as heat-related illnesses, vector-borne disease prevalence (except for malaria), access to SRH services, or the mental health consequences of climate-related disasters. The absence of these indicators from M&E limits Uganda's ability to evaluate health sector resilience and the effectiveness of its health adaptation measures. However, the NDC's inclusion of health indicators identified in Uganda's H-NAP provides a foundation for improving integration.

### FOR ENHANCED MONITORING AND REPORTING, NDC 3.0 SHOULD:

- Align with the Health-National Adaptation Plan and establish a dedicated health monitoring framework.
- Define measurable indicators such as reductions in heat-related illnesses, improved SRH service coverage, decreased hospitalizations from air pollution, and lower incidence of vector-borne diseases.
- Set time-bound targets in physical health, mental health, SRH services, and health-determining sectors.
- Integrate health indicators into national climate monitoring platforms and ensure consistency with Sustainable Development Goals and national development reporting.

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